



# Geography in the Census & ACS

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October 23, 2012



Let's take an in-depth look at the geography available in the Decennial Censuses and the American Community Survey.

# Legal Geography in CA

- ▶ United States
  - State of California
    - County {58}
    - Incorporated Cities {480 in 2010, currently 482}
    - American Indian Reservation or Rancheria {108}
    - California Senate {40} and Assembly Districts {80}
    - School Districts {987}
  - Congressional Districts {53}



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There are two different types of geography – legal and statistical.

Legal jurisdictions have legally described boundaries which cannot change without legal steps.

Note that “Incorporated Cities” are included in the “Places” classification.

In California, incorporated cities cannot cross county boundaries.

## Statistical Geography in CA

- ▶ County {58}
  - Census County Divisions (CCD) {397}
    - Census Tract {8057}
    - Block Groups {23,212}
    - Blocks {710,145}
- ▶ Census Designated Places (CDP) {1,043}
- ▶ ZIP Code Tabulations Areas (ZCTA) {1,769}
- ▶ Metropolitan Areas
- ▶ Urbanized Areas {59} and Urban Clusters {152}
- ▶ Public Use Microdata Areas (PUMA) {265 for 2010}

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Statistical geography is an area that is created to identify an area for the tabulation of census data only.

CCD are not commonly used in CA – they are here as an equivalent level of geography to Minor Civil Divisions in some states in the East.

CDP boundaries are drawn by the local partner, the State Data Center, or the Census Bureau.

# Census Tracts in CA

- ▶ Optimal population of 4,000 but can be between 1,200 and 8,000.
- ▶ There are 8057 tracts in the 2010 census and 7049 in the 2000 census. The 2005–2009 ACS used 2000 census tracts and the 2006–2010 and later ACS uses 2010.
- ▶ Nested within a county but can be divided by city and CDP boundaries.
- ▶ Tract Codes: One to four digits and an optional two digit suffix.

In Reports	In Data Files
1	000100
1.02	000102
22.04	002204
4001.01	400101

- ▶ **IMPORTANT:** Tracts are numbered within a county. To identify a specific tract, you must have the state, county, and tract codes. There are 16 counties with a Tract 1 in California.

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**Census Tracts** are small, relatively permanent statistical subdivisions of a county that are updated by local participants prior to each decennial census as part of the Census Bureau's Participant Statistical Areas Program. The primary purpose of census tracts is to provide a stable set of geographic units for the presentation of statistical data.

A census tract usually covers a contiguous area; however, the land area of census tracts varies widely depending on the density of settlement. Census tract boundaries are delineated with the intention of being maintained over a long time so that statistical comparisons can be made from census to census. Census tracts occasionally are split due to population growth or merged as a result of substantial population decline.

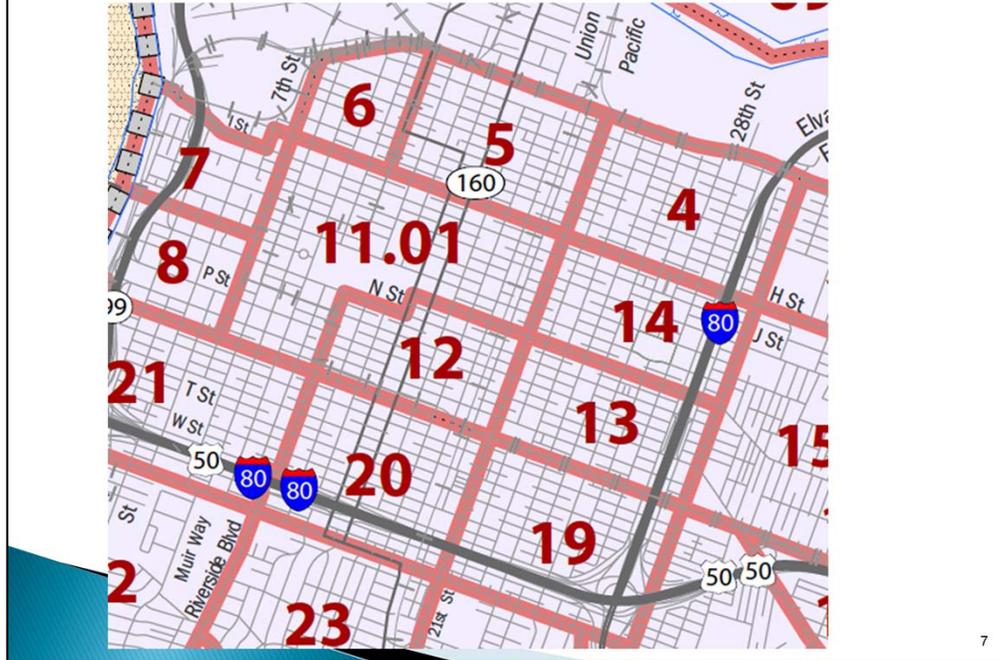
# Block Groups in CA

- ▶ Population between 600 and 3,000.
- ▶ There are 23,212 block groups in the 2010 Census and 22,133 in 2000.
- ▶ A block group consists of all blocks in a single tract with the same first digit. For example, blocks 3001, 3002, 3003, . . . , 3999 in census tract 1210.02 belong to BG 3 in that census tract.
- ▶ Codes: BGs have a valid code range of 0 through 9. BGs beginning with a zero only contain water area.
- ▶ **IMPORTANT:** Block groups are numbered within a census tract. To identify a specific BG, you must have the state, county, and tract codes.
- ▶ This is the lowest level of geography available in the American Community Survey. **But only selected tables are available for block groups.**

## Blocks in CA

- ▶ Statistical areas bounded by visible features, such as streets, roads, streams, and railroad tracks, and by nonvisible boundaries, such as selected property lines and city, township, school district, and county limits and short line-of-sight extensions of streets and roads.
- ▶ There are 710,145 block groups in the 2010 Census and 533,163 in 2000 – a 33% increase.
- ▶ Census blocks nest within all other tabulated census geographic entities and are the basis for all tabulated data.
- ▶ Four digit code from 0000 to 9999 within a census tract. Block numbers beginning with a zero (in Block Group 0) are only associated with water-only areas.

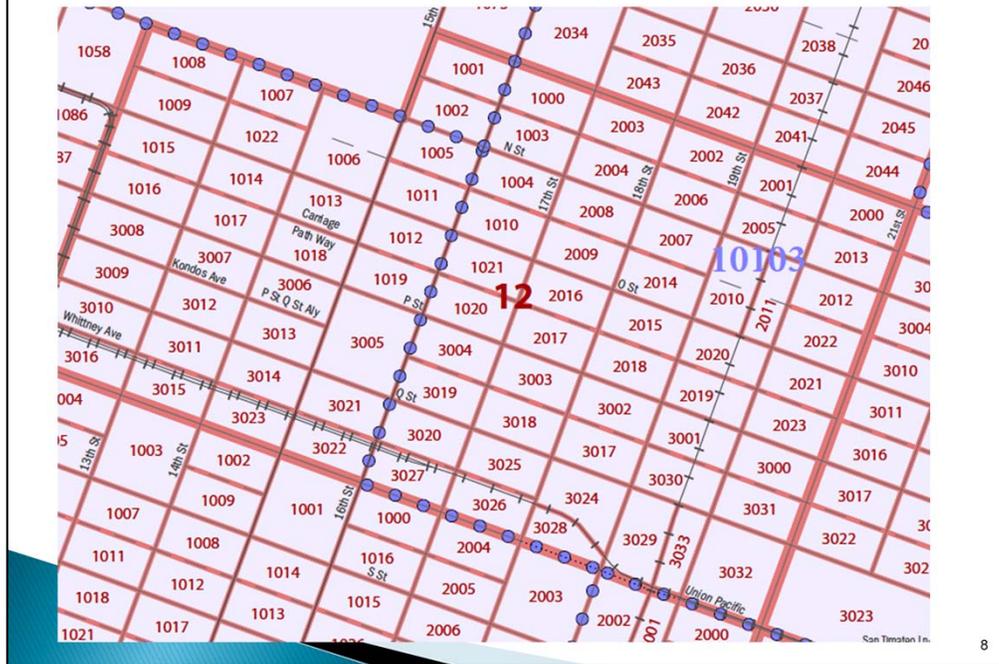
## Tracts in Downtown Sacramento



Census Tract 12 is bounded by R Street, 12 Street, N Street, 15<sup>th</sup> street, Capitol Ave, 21<sup>st</sup> Street back to R Street

We are in tract 11.01

# Blocks in Downtown Sacramento



The blue dotted line is a voting district boundary.

# Census Geography for an Address

The screenshot shows the 'Select Geographies' window in American FactFinder. The search criteria are: street address '1120 N Street', city 'Sacramento', state 'California', and ZIP code '95814'. The results table lists various geographic levels from State to Block.

Geography Name	Geography Type	Geography Code
California	State	040
Sacramento County, California	County	050
Sacramento CCD, Sacramento County, California	County Subdivision	060
Block 1058, Block Group 1, Census Tract 11.01, Sacramento County, California	Block	100
Census Tract 11.01, Sacramento County, California	Census Tract	140
Block Group 1, Census Tract 11.01, Sacramento County, California	Block Group within Census Tract	150
Sacramento city, California	Place within State	160
Sacramento--Arden-Arcade--Roseville, CA Metro Area	Metro Statistical Area/Micro Statistical Area	310
Congressional District 5 (112th Congress), California	Congressional District	500
State Senate District 8 (2010), California	State Legislative District (Inner)	610

You can find the census geography for a particular address on American FactFinder.

## Census Designated Places in CA

- ▶ CDPs are settled concentrations of population that are locally identifiable by name but are not legally incorporated.
- ▶ No population size limit.
- ▶ CDPs and incorporated cities are grouped together in census geography as "Places".
- ▶ Boundaries are drawn by local officials, the State Data Center, or the Census Bureau.
- ▶ CDP boundaries may change from one decennial census to the next. A CDP with the same name as in an earlier census does not necessarily have the same boundary.
- ▶ If a CDP incorporates, the new city will probably not have the same boundaries as the old CDP even when it has the same name.
- ▶ A CDP can cross county boundaries. There are four of these in CA. In census tabulations, the data are usually for the whole CDP, not the parts in each county.

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\* There are 1,523 whole places (sumlev 160). Four places are split by counties = 1,527 in sumlev 155.

02812 Aromas CDP – Monterey and San Benito

38604 Kingvale CDP – Nevada and Placer

38646 Kirkwood CDP – Amador and Alpine

77728 Tahoma CDP – El Dorado and Placer

There are cases where the name of a CDP and the name of a city are the same – for example, Burbank city in LA county and Burbank CDP in Santa Clara County. So pay attention to the label.

## ZCTA in CA

- ▶ ZIP Code Tabulation Areas (ZCTAs) are approximate area representations of U.S. Postal Service (USPS) five-digit ZIP Code service areas.
- ▶ The Census Bureau defines ZCTAs by allocating each block that contains addresses to a single ZCTA, usually to the ZCTA that reflects the most frequently occurring ZIP Code for the addresses within that tabulation block.
- ▶ Data users should not use ZCTAs to identify the official USPS ZIP Code for mail delivery. The USPS makes periodic changes to ZIP Codes to support more efficient mail delivery.
- ▶ The ZCTAs process used primarily residential addresses and was biased towards Zip Codes used for city-style mail delivery, thus **there may be Zip Codes that are primarily nonresidential or only P.O. boxes that may not have a corresponding ZCTA.**

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Last bullet – important when trying to match census data to tabulations of your own data.

## Urban Areas in CA

- ▶ For the 2010 Census, the Census Bureau classified as urban all territory, population, and housing units located within urbanized areas (UAs) and urban clusters (UCs). UA and UC boundaries that densely developed territory, encompassing residential, commercial, and other nonresidential urban land uses. 2010 Criteria is online at [www.census.gov/geo/www/ua/2010urbanruralclass.html](http://www.census.gov/geo/www/ua/2010urbanruralclass.html)
- ▶ Rural consists of all territory, population, and housing units located outside UAs and UCs.
- ▶ Urbanized Areas (UAs)—An urbanized area consists of densely developed territory that contains 50,000 or more people. The Census Bureau delineates UAs to provide a better separation of urban and rural territory, population, and housing in the vicinity of large places.
- ▶ Urban Clusters (UCs)—An urban cluster consists of densely developed territory that has at least 2,500 people but fewer than 50,000 people.

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**Counts in California:** Urbanized Areas {59} and Urban Clusters {152}

**Central Place**—The 2010 Census urban areas **will no longer include one** or more designated central places. In preceding censuses, the central place included all incorporated or census designated places included in the urban area title, plus additional incorporated areas that met a population size criterion. The concept of central place for urban areas no longer is being applied.

**Urban Area Titles and Codes**—The title of each UA and UC may contain up to three incorporated place or census designated place (CDP) names and will include the two-letter U.S. Postal Service abbreviation for each state or statistically equivalent entity into which the UA or UC extends.

Criteria - <http://www.census.gov/geo/www/ua/2010urbanruralclass.html>

## PUMAs in CA

- ▶ Public Use Microdata Areas (PUMAs) are special geographic areas used in the Public Use Microdata Sample (PUMS) files.
- ▶ Require at least 100,000 per area.
- ▶ The new 2010 PUMAs were drawn by the four major councils of governments (ABAG, SCAG, SANDAG, SACOG) and the California State Data Center.
- ▶ New for 2010, all PUMAs are an aggregation of whole census tracts within counties. The Census 2000 PUMAs permitted the delineation of PUMAs based on place boundaries.
- ▶ Where a county did not have 100,000 population, that county is combined with contiguous county(ies) to achieve the required population.
- ▶ 34 counties can be identified individually plus 7 multi-county areas. Will come out in the 2012 ACS to be released in 2013. Currently using the Census 2000 PUMAs.

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**Public Use Microdata Areas (PUMAs)** are geographic areas for which the Census Bureau provides selected extracts of raw data from a small sample of census records that are screened to protect confidentiality. These extracts are referred to as public use microdata sample (PUMS) files.

For the 2010 Census, each state, the District of Columbia, Puerto Rico, and some Island Area participants delineated PUMAs for use in presenting PUMS data based on a 5 percent sample of decennial census or American Community Survey data. These areas are required to contain at least 100,000 people. This is different from Census 2000 when two types of PUMAs were defined: a 5 percent PUMA as for 2010 and an additional super-PUMA designed to

**Why should you care?** Because with the PUMS file, you can create special tabulations that are not available on the standard summary files.

## Geographic Resources:

- 2010 Census Block and Census Tract Maps – [www.census.gov/rdo/data/2010\\_census\\_redistricting\\_map\\_suite.html](http://www.census.gov/rdo/data/2010_census_redistricting_map_suite.html)
- TIGER/Line Files (for GIS applications) – [www.census.gov/geo/www/tiger/shp.html](http://www.census.gov/geo/www/tiger/shp.html)
- Urban Areas:
  - Relationship Files(UA to other census geography) – [www.census.gov/geo/www/ua/2010ua\\_rel\\_dl.html](http://www.census.gov/geo/www/ua/2010ua_rel_dl.html)
  - Boundary Shape Files (for GIS applications – select the “Urban Area” layer) – [www.census.gov/cgi-bin/geo/shapefiles2010/main](http://www.census.gov/cgi-bin/geo/shapefiles2010/main)
  - Reference Maps (“ua” = Urbanized Areas; “uc” = Urban clusters) – [www2.census.gov/geo/maps/dc10map/UAUC\\_RefMap/](http://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/)

# Questions? Call Us.

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Thank you!